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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* TODD A. COBLE, STEVEN K. PEETZ, and JOHN F. MYERS

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Appeal 2009-001521  
Application 10/672,421  
Technology Center 3600

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Decided: February 12, 2010

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*Before:* JENNIFER D. BAHR, JOHN C. KERINS, and MICHAEL W.  
O'NEILL, *Administrative Patent Judges.*

BAHR, *Administrative Patent Judge.*

DECISION ON APPEAL

## STATEMENT OF THE CASE

Todd A. Coble et al. (Appellants) appeal under 35 U.S.C. § 134 (2002) from the Examiner's decision rejecting claims 1-5, 7-9, 14, and 19-21<sup>1</sup>. Claims 10, 12, 13, and 15 have been objected to for depending from a rejected claim. Claims 16-18 have been withdrawn from consideration. Claims 6 and 11 have been canceled. We have jurisdiction over this appeal under 35 U.S.C. § 6 (2002).

### *The Invention*

Appellants' claimed invention is directed to a mounting assembly for ceiling fans and light fixtures. Spec. [1].

Claim 1, reproduced below, is illustrative of the claimed invention.

1. A ceiling fixture support assembly for mounting an electrical fixture to at least one structural support member, the assembly comprising:

an electrical box including a base member and a side member, the base member being substantially disk shaped having a first beveled edge and a second beveled edge disposed parallel to the first beveled edge, the base member also including a plurality of slots, the side member being connected to the base member to form an interior volume, the side member having a first flat portion corresponding to the first beveled edge and a second flat portion corresponding to the second beveled edge;

a fixture support assembly including a first fixture support configured to be coupled to the first flat portion and a second fixture support configured to

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<sup>1</sup> Appellants present arguments for claim 12, but the Examiner has withdrawn the rejection of this claim. Ans. 3.

be coupled to the second flat portion, the fixture support assembly being configured to support a ceiling fixture within the interior volume; and a mounting assembly including a plurality of tab members configured to be inserted into the plurality of slots such that the plurality of tab members and the base member form a channel, the channel being configured to receive the structural member therein, whereby the electrical box is coupled to the structural support member.

### *The Rejections*

The Examiner relies upon the following as evidence of unpatentability:

Rugg	US 2,380,793	Jul. 31, 1945
Reiker	US 6,207,897 B1	Mar. 27, 2001
Bell	US 6,545,216 B1	Apr. 8, 2003

Appellants seek review of the Examiner's rejections under 35 U.S.C. § 103(a) of claims 1-5, 7-9, and 19-21 as unpatentable over Rugg and Bell and claim 14<sup>2</sup> as unpatentable over Rugg, Bell, and Reiker.

### SUMMARY OF DECISION

We AFFIRM.

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<sup>2</sup> See n.1, *supra*.

## ISSUES

The Examiner rejected claim 1 with a proposed combination of Rugg and Bell. Ans. 4-5. In particular, the Examiner found that Rugg describes a base member formed from the bottom 4 of electrical box 2 and a back plate 7 having slots 10. Ans. 4. Further, the Examiner found that Rugg describes a U-shaped mounting assembly 8 with tabs 14 that fit through slots 10 of the base member to form a channel. *Id.* Appellants argue that Rugg does not teach or suggest an electrical box with a base member having slots as recited in claim 1 because Rugg depicts the electrical box 2 and back plate 7 as separate objects. Appeal Br. 7. Next, Appellants argue that Rugg does not teach or suggest a mounting assembly having a "channel" configured to receive a structural member because tabs 14 of Rugg instead have slots 15 configured to receive a bar hanger. Appeal Br. 8. Finally, Appellants argue that the Examiner has not provided a proper teaching, suggestion, or motivation because the incorporation of Bell would change the principle of operation of Rugg, and would render Rugg unsatisfactory for its intended purpose because Rugg describes an electrical box support, while Bell describes a fixture support. Appeal Br. 9-11. Appellants do not separately argue claims 2-5, 9, and 19-21, and as such, they stand or fall with claim 1. 37 C.F.R. § 41.37(c)(1)(vii) (2009).

The Examiner rejected claim 14 with a proposed combination of Rugg, Bell, and Reiker. Ans. 5. Appellants argue that the Examiner has not discussed how Rugg and Bell teach or suggest the limitations found in intervening claims 7 and 8. Appeal Br. 12. Appellants further argue that Reiker's bracket is coupled to the exterior side of the box, not inside as required by claim 14. *Id.* Finally, Appellants argue that the Examiner has

not provided a proper suggestion or motivation for combining the references on the basis that the proposed combination would render Rugg unsatisfactory for its intended purpose of mounting a standard electrical box to a bar hanger because it would instead be mounted to a joist. Appeal Br. 13.

Therefore, the issues presented in this appeal are:

- (1) Did the Examiner err in finding that Rugg's electrical box bottom and a back plate together correspond to the "base member" limitation, and that the space between Rugg's tabs with slots corresponds to the "channel" limitation of claim 1? Further, would the Examiner's proposed combination of Rugg and Bell change the principle of operation of Rugg, or render Rugg unsatisfactory for its intended purpose, because Rugg describes an electrical box support, while Bell describes a fixture support?
- (2) Did the Examiner err in finding that Rugg, Bell, and Reiker, in combination, render obvious the limitations found in claim 14 because Reiker describes a bracket mounted to the exterior, not interior, of the box? Further, would the Examiner's proposed combination of Rugg, Bell, and Reiker render Rugg unsatisfactory for its intended purpose of mounting a standard electrical box because the proposed combination would utilize connectors to fasten the bracket to the baseplate?

FACTS PERTINENT TO THE ISSUES  
(FINDINGS-OF-FACT (FF))

- FF1 Rugg describes a mounting means for attaching a standard outlet box 2 to a standard bar hanger 1. Page 1, left col., ll. 1-8. In particular, a U-shaped clamping frame 8 having tabs (side arms 14) is inserted into slots 10 of back plate 7 attached to base 4 of outlet box 2 by ears 12. Page 1, left col., ll. 43-54, figs 2, 3. Further, threaded pipe 19 is a fixture stud that allows the outlet box to hang fixtures. Page 2, left col., ll. 7-19.
- FF2 Rugg describes a hanger bar 1 inserted through a channel defined by openings 15 on tabs 14. Page 1, right col., ll. 1-3.
- FF3 Bell describes fixture supports 40 that allow fixtures of various dimensions and weights to be supported thereon. Col. 1, ll. 14-24. In particular, fixture supports 40 allow a junction box of a particular size to be converted into a junction box supporting fixtures of a different size or of many different sizes. Col. 1, l. 40 to col. 2, l. 2.
- FF4 Reiker describes an electrical fixture mounting assembly having a generally U-shaped mounting bracket 518 useful in securely mounting a junction box/electrical box to joists or studs. Col. 8, ll. 30-41; col. 2, ll. 21-26, 55-60. In particular, connector studs 550, formed of head 552 and shaft 554, serve to connect a mounting bracket 518 to the junction box 514. Col. 8, l. 66 to col. 9, l. 11.

PRINCIPLES OF LAW

While there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness, "the analysis

need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ." *KSR Int'l v. Teleflex Inc.*, 550 U.S. 398, 418 (2007).

Further, the Supreme Court notes "[a] factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning. Rigid preventative rules that deny factfinders recourse to common sense, however, are neither necessary under our case law nor consistent with it." *Id.* at 421 (internal citations omitted).

Finally, "if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill." *Id.* at 417.

## ANALYSIS

### *Issue (1) - Claim 1*

#### *"Base Member"*

Appellants argue that Rugg does not teach or suggest an electrical box with a base member having slots as recited in claim 1 because Rugg depicts the electrical box 2 and back plate 7 as separate objects. Appeal Br. 7. However, claim 1 does not require that the base member be a single, unitary component. It is well established that limitations not appearing in the claims cannot be relied upon for patentability. *See In re Self*, 671 F.2d 1344, 1348 (CCPA 1982).

Further, even if claim 1 were to require a single, unitary base member, a patent is valuable for all it teaches to one of ordinary skill in the art. *In re*



*Preda*, 401 F.2d 825, 826 (CCPA 1968) ("[I]t is proper to take into account not only specific teachings of the references but also the inferences which one skilled in the art would reasonably be expected to draw therefrom."). Rugg plainly advocates the advantages of clamping an outlet box to a structural support using a clamping force between slots and tabs. FF1. While Rugg's provision of a separate slotted back plate 7 appears to be directed to a retrofit application for use with a conventional outlet box 2 provided simply with a central opening 6, one of ordinary skill in the art would clearly understand that if an outlet box were modified to already include slots 10, then base plate 7 would not be necessary as a separate component, without affecting the principle of operation of Rugg in any manner. *See In re Larson*, 340 F.2d 965, 968 (CCPA 1965) ("the use of a one piece construction instead of the [multiple piece] structure disclosed in [the prior art] would be merely a matter of obvious engineering choice"). Accordingly, the claimed feature of a base member including a plurality of slots does not patentably distinguish claim 1 over the structure of Rugg.

*"Channel"*

Next, Appellants argue that Rugg does not teach or suggest a mounting assembly having a channel configured to receive a structural member because tabs 14 of Rugg have openings 15 configured to receive a bar hanger. Appeal Br. 8. However, claim 1 does not require a structural member received in the channel, much less a structural member received in the channel and extending parallel to the tabs, as Appellants appear to be arguing. *See In re Self*, 671 F.2d at 1348. Rather, claim 1 merely requires the tab members and base member to form a channel configured to receive a structural member therein. Appellants have not convincingly explained why

the channel defined by the tabs 14 and base member 4/7 of Rugg (FF2) is not configured to receive a structural member therein. The channel formed between tabs 14 appears reasonably capable of receiving a structural member extending parallel to the tabs. Moreover, Rugg in fact describes a structural member (hanger support 1) received in the channel, albeit not in an orientation extending parallel to the tabs. If base member 4/7, tabs 14, or openings 15 were not configured in the proper size and shape, then the structural member 1 would not fit in the channel as depicted in figure 2. However, the base member, tabs, and openings are configured in such a way as to allow bar hanger 1 to fit into the channel.

*Combination of Rugg and Bell*

Appellants argue that the Examiner has not provided a proper teaching, suggestion, or motivation because the Examiner's proposed combination of Rugg and Bell would change the principle of operation of Rugg, and would render Rugg unsatisfactory for its intended purpose. Appeal Br. 9-11. First, the Supreme Court has explicitly rejected the application of a rigid formula insisting on a teaching, suggestion, or motivation (TSM) to demonstrate obviousness. *See KSR*, 550 U.S. at 415 ("[w]e begin by rejecting the rigid [TSM] approach of the Court of Appeals."). Instead, "a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ." *Id.* at 418. As the Examiner concluded, Bell's fixture supports 40 would provide Rugg's outlet box with the benefits described in Bell. Ans. 4-5. Rugg explicitly describes a fixture stud, which is used to mount fixtures. FF1. Bell explicitly teaches that the fixture supports 40 improve a box by providing flexible configuration options. FF3. Modifying the outlet box in Rugg to

include the fixture supports in Bell is nothing more than applying a technique used to improve the usability of one device and improving a similar device in the same way, which involves nothing more than ordinary creativity well within the technical grasp of a person of ordinary skill in the art. *See KSR*, 550 U.S. at 417.

To the extent that Rugg's optional fixture stud 19 may need to be modified or, *as suggested by Rugg*, eliminated, such modification involves simply a matter of ordinary skill, requiring nothing more than common sense. *See KSR*, 550, U.S. at 421 (a "person of ordinary skill is also a person of ordinary creativity, not an automaton."); *In re Sovish*, 769 F.2d 738, 743 (Fed. Cir. 1985) (one of ordinary skill in the art is presumed to have skills apart from what the prior art references expressly disclose). Therefore, the principle of operation and intended purpose in Rugg is not changed because Rugg's device continues to support an outlet box, improved by a simple modification to be able to support adjustably-sized fixtures.

*Issue (2) - Claims 7, 8, and 14*

*Claims 7 and 8*

With respect to claim 14, Appellants argue that the Examiner has not discussed how Rugg and Bell teach or suggest the limitations found in intervening claims 7 and 8. Appeal Br. 12. The Examiner's rejection includes a finding that Rugg's mounting assembly 8 is "U-shaped," as required by claim 7 (Ans. 4). Further, it is plain from Rugg that this U-shaped mounting assembly 8 has a flat portion abutting the base member 4/7 as required by claim 8. *See* FF1. The Examiner has further explained how the structure in Rugg corresponds to the limitations found in claims 7 and 8

at pages 9-10 of the Examiner's Answer. Appellants allege no particular error in the Examiner's findings or conclusions with respect to claims 7 and 8; thus, we do not find error in the Examiner's rejection.

*Claim 14*

Appellants further argue that the Examiner erred in rejecting claim 14 because Reiker's bracket is coupled to the flat exterior side of the box. Appeal Br. 12. However, the Examiner does not propose incorporating the features of Reiker describing where to mount the U-shaped object (bracket 520) using connectors 554, but rather suggests incorporating the plurality of connectors 554 themselves into the proposed combination of Rugg and Bell. Ans. 5. Thus, Appellants' argument is not directed to the combination proposed by the Examiner.

*Combination of Rugg, Bell, and Reiker*

Appellants argue that the Examiner has not provided a proper suggestion or motivation for combining the references as proposed because modifying Rugg's mounting device with Reiker's mounting device as proposed would render Rugg unsatisfactory for its intended purpose. Appeal Br. 13. However, modifying Rugg's mounting device with Reiker's connectors 554 would allow Rugg's device to securely fasten the U-shaped plate 8 to the baseplate 4/7, exactly as described in Reiker. *See* FF4, noting that Reiker describes that the connectors securely fasten the mounting bracket to the box; *KSR*, 550 U.S. at 417 ("if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill").

Therefore, the Examiner's proposed modification of Rugg's outlet box support to include Reiker's connectors 554 does not render Rugg's device inoperable but merely extends its utility to be able to more securely fasten the devices mounted on the box. Rugg makes no representation, nor does it make any logical sense, that the mounting means and support of Rugg would fail to mount an outlet box if the base plate 8 were more securely fastened to the base member.

### CONCLUSIONS

- (1) The Examiner did not err in finding that Rugg's electrical box bottom and a back plate together corresponds to a "base member" and that Rugg's tabs having slots for a hanger bar form a "channel" as recited in claim 1. Further, the Examiner's proposed combination of Rugg and Bell would not change the principle of operation of Rugg or render Rugg unsatisfactory for its intended purpose. Claims 2-5, 9, and 19-21 fall with claim 1.
- (2) The Examiner did not err in finding that Rugg, Bell, and Reiker, in combination, render obvious the limitations found in claim 14 because Reiker describes a bracket mounted to the exterior of the box. Further, the Examiner's proposed combination of Rugg, Bell, and Reiker would not render Rugg unsatisfactory for its intended purpose of mounting a standard electrical box to a bar hanger. In addition, we do not find error in the Examiner's rejection of claims 7 and 8 as unpatentable over Rugg and Bell.

DECISION

The Examiner's decision is affirmed as to claims 1-5, 7-9, 14, and 19-21.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2007).

AFFIRMED

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